

THE BRIDGE

SOUTHWEST DIVISION, Naval Facilities Engineering Command 1220 Pacific Highway, San Diego, California 92132-5190 Vol. 2, No. 1 January 2000



- ★ IR Cleanup Conference is scheduled for February 15 17, 1999.
- ★ UXO Tiger Team is being established to review our management of UXO. Volunteers are being solicited through the Environmental BLAST. Submit your name to your respective BLTL.
- ☆ Environmental Business Line Manager (EBLM) meets every Monday at 3:00 PM
- Environmental Data & Oversight Group (EDOG); see Michael Pound for next meeting.
- Environmental Business Line Acquisition Strategy Meeting (EBLAST) meets every Thursday 10:00 AM (see Dan Mitchell/Glenn Negoro for meeting locations).
- Southbay Joint Project Review, NAVSTA Building 99, January 11, 2000 9:00 AM.
- ★ Environmental Executive Support Committee (ESC) Meeting, Command Conference Room, January 19, 2000, 7:30 AM – 1:00 PM
- RAC IPT Meeting, Port Hueneme, CA January 25 27, 2000.
- CELSOC Symposium, October 5, 2000, contact Chris Kotas.
- ↑ 16th Annual International Conference on Contaminated Soils, Sediments & Water, October 16, 2000 (Abstracts are due by February 7, 2000). Since the "Navy" is now prominently listed as a collaborator on the announcement, I encourage you to pass this info on to your folks and exhort them to submit an abstract for consideration (and hopefully be selected to present a paper) on one of their projects/sites. One way to accomplish this is to involve our CLEAN/RAC contractors as co-authors. Contact Glenn Negoro.

RESTORATION ASSOCIATE OF THE YEAR PRichard G. Mach, Jr. Ü

Mr. Mach's contributions throughout this past year to Southwest Division, the NAVFAC organization, and the Navy have been outstanding. His strong communication skills, work ethic, and sense of teamwork have made this a very productive year for the Navy's environmental program.

Richard G. Mach, Jr. (continued)

He has demonstrated that he is a strong team player. Through his close coordination with the field team (the construction team), PWC, PWO, ACOE, regulators and various contractors, Mr. Mach successfully brought to completion many projects and demonstrated major cost savings in the Naval Air Station North Island (NASNI) Installation Restoration Program.

Mr. Mach completed the closure activities for Sites 4, 6, and 10 (PCB Time Critical Removal Action). This project successfully removed all PCBs from Site 10. It completely remediated Site 6 (which has received No Further Action concurrence from DTSC), and completed remediation at Site 4, which returned the site for use as the golf course driving range. These efforts saved over \$3.5M in project costs. In addition, his coordination efforts with the ROICC and PWO resulted in the reduction of over 4,000 truck trips through the City of Coronado for this project.

Mr. Mach coordinated with the Army Waterways Experimentation Station to bring their Membrane Interface Probe (Innovative Technology) to San Diego, coupled it with the PWC personnel and their SCAPS rig, and performed an extensive investigation of the ground water at NASNI. The use of this innovative tool saved over \$100,000 in investigation costs. The Army also funded over \$66,000 of project costs.

Additionally, Mr. Mach did an outstanding job managing the Formerly Used Defense Site (FUDS) tank project with the ACOE. Communication with the activity, community, residents, and the ACOE was key to the success of this project. He presented the issues to the community, coordinated funding priority with the ACOE, and implemented the geophysical survey of the site. His efforts turned a potentially sensitive community relations situation into a well-run project in which the residents are extremely pleased with the outcome.

Mr. Mach's biggest contribution this year for the NASNI program has been his continuing efforts associated with the NASNI fuel farm.

Even with a very large project work load, which includes managing 12 BRAC contracts, 1 CLEAN contract, a RAB support contract, and 5 PWC Job Order Numbers worth over \$30M, Mr. Mach also proactively participates in many endeavors to improve the NAVFAC and Navy's Installation Restoration Program. These endeavors include the Alternative Restoration Technology Team (1996-present), Research and Development Project Evaluation Team, Y-0817 (1997-present), Chemical Oxidation Workgroup (1998-1999), Remedial Action Assessment System Review (1998-1999), Diffusion Samplers Evaluation Team (1999-present), and Navy Technical Representative Tiger Team leader (1999-present).

ENGINEERING FIELD ACTIVITY WEST ENVIRONMENTAL BRAC PROGRAM HAS BEEN TRANSITIONED TO SOUTHWEST DIVISION FOR EXECUTION AND MANAGEMENT

Engineering Field Activity West (EFAWest) is transitioning down to approximately 124 persons serving Concord Naval Weapons Station, Naval Post Graduate School (Monterey), Naval Air Station Lemoore, Navy Communications Site at Stockton (Ruff-N-Ready Island), Centerville Beach, Skaggs Island, EFAWest San Bruno Facility, and various reserve centers. Southwest Division will service all BRAC closures. The ER,N program will remain centrally managed at EFAWest by **Rich Faris**. **AI Fung** will also remain as the COTR for EFAWest CLEAN and RAC projects. As with any major undertaking, there are several key issues that must be worked out. The key issues are West Coast Cost Reimbursement contract capacity, relocation of people/files/office space, designation of COTR, and central management of government property. As solutions to these key issues we are establishing a wider footprint for all contracts (Cost Reimbursement/Fixed Price) in order to optimize West Coast Acquisition Strategy, partnered with the Fleet Industrial Supply Center (FISC) to assist in the relocation of environmental contract files, acquired additional office space at 1230 Columbia St., and designated a central government property management facility as an extension to NEMFAC in San Diego. Additional details on NEMFAC are included in this edition of the newsletter as a separate article.



Environmental Data and Oversight Group (EDOG) was established to develop a strategy for the environmental program web-based communications. Plans are for the strategy to cover data collection, storage, and management. EDOG is chaired by Michael Pound. Other members include Lucreatria Holloway, Mark Bonsavage, Todd Glimpse, and Vivian Sanchez. Recently, EDOG requested environmental endusers to complete a data management survey to provide focus on what types of data to collect, frequency of collection, and collection methodology. The timeline for implementation is 12-18 months.

IT Group Announces SWDIV RAC Nominations for National Quality Award

Each year The IT Group holds a national competition for National Quality Awards. A panel of Company leaders will meet this month to evaluate and score summarized nomination packages provided by various programs throughout the country. The 1999 Award recipients will be announced in January 1999 Team Award Nominations. Bridgeport Team: DO 128; PM, Chris Corey; RPM, Jerry Dunaway. Camp Pendleton Team: DOs 104/105; PM, Max Pan; RPM, Jerry Dunaway. Tustin Team: Various DOs. PMs, Jim Werkmeister and Marcus Smith; SWDIV RPM, DeAnna Dunbar. Yuma Team: DO 143; PM, Bill Breedlove; RPM, Mike Gonzales. North Island Real-Time Portable GC/MS Support Team: Lead, Merry Coons; SWDIV RPM, Richard Mach. Document Production Group: Lead, Robbin Gates. IT/OHM Project Chemists: Lead, Dwayne Ishida. PMO Admin Team: Lead, Dawn Rego.



Navy Equipment Management Facility (NEMFac)

The NEMFac (Navy Equipment Management Facility) was established to provide a centralized warehouse for the storing and maintenance of Government Furnished Equipment to be loaned to South West Division (SWDIV) cost-type environmental contractors. In general, NEMFac manages accountable, non-expendable equipment. The equipment can be requested by any SWDIV cost-type environmental contractor performing on a SWDIV project by bringing up the NEMFac web site identified above. The contractor having custody of the equipment is responsible for its security, maintenance, and repair while checked out to them pursuant to the government property clause in their contract. Requesters need to obtain in advance a user ID and password for entering the web page.

This management concept of centralized pooling of the equipment was developed to facilitate our contractors accessing all Navy-owned equipment with a minimum amount of time and effort, while greatly reducing the rental and procurement cost to the government. This cost reduction is accomplished partly by eliminating duplication of equipment purchases and increasing the utilization of equipment owned. The NEMFac operation is currently realizing a net rental savings per year of approximately \$3M for a total net savings since 1994 in excess of \$10M. Another benefit of the NEMFac facility is that it ensures that all equipment is calibrated and in proper operating condition prior to being checked out.

The NEMFac facility has proven to be a highly successful operation. All qualifying contractors should be encouraged to take advantage of the NEMFac services available.

Consideration is being given to establishing a comparable facility for servicing the Central West area as a satellite of the Southwest facility.

Environmental Restoration Quarterly FY00 Schedule



To enroll in any class, submit a CECOS Fax Quota Request Form to the CECOS Registrar via fax (805) 982-2918. The Quota Request Form, as well as confirmation of receipt, may be obtained by contacting the Registrar by phone at (805) 982-2895 or fax (805) 982-2918. CECOS information and enrollment is also available on the web at www.cnet.navy.mil/cecos/cecos.htm. Registrations should be made at least three weeks in advance to allow for adequate planning and to prevent course cancellation.

Ecological Risk Assessment			Health and Environmental Risk Communication			
00010	25-27 Jan 00	Philadelphia, PA	00020	25-27 Jan 00	Port Hueneme, CA	
00020	08-10 Feb 00	Silverdale, WA	00030	01-03 Feb 00	Charleston, SC	
			00040	14-16 Mar 00	Honolulu, HI	
Environmental Geographic Information						
System (GIS)				Remedy Selection and Closure		
00010	07-08 Mar 00	Philadelphia, PA	00020	07-08 Mar 00	San Diego, CA	
Environmental Negotiation Workshop				HAZWOPER - Site Workers		
00020	11-13 Jan 00	Honolulu, HI	00010	14-18 Feb 00	Washington, DC	
00030	29 Feb-2 Mar 00	Norfolk, VA		HAZWOPER - Refresher		
Environmental Risk Assessment and			00010	9 Feb 00	San Bruno, CA	
<u>Management</u>			00020	10 Feb 00	San Bruno, CA	
00020	15 17 Eab 00	San Danna CA	00030	01 Mar 00	Washington, DC	
00020	15-17 Feb 00	San Bruno, CA	00040	02 Mar 00	Washington, DC	

In the last edition of the newsletter, we highlighted our progress in supporting the "Paperless Initiative". We specifically listed what activities or processes would become a part of the "Paperless Initiative" in the future.

As a bit of background, the Secretary of Defense has directed that the Services undertake a revolution in business practices in conjunction with the Quadrennial Defense Review. He has specifically cited the need to simplify and modernize our acquisition process in the area of contract writing, administration, finance, and auditing. The Under Secretary of Defense Acquisition & Technology has a developed a blueprint to move to a totally paper-free contract writing, administration, finance, and auditing process. The paper-free acquisition process coincides with the Department of Defense corporate goal of digital operations for acquisition management and life cycle integrated information.

The goal is to move to a paper-free contracting process by January 1, 2000.

Upon full implementation of a paper-free acquisition process cycle time and administrative overhead will be greatly reduced, thus freeing up resources for more pressing needs.

The specific performance measurements are "Contract Requirements, Solicitations, Awards/Modifications, Receipts & Acceptance, Invoices/Payment, Contract Closeouts". It is against these measurements that we must report monthly.



Naval Air Facility El Centro (NAFEC)

NAFEC was recently selected as the Southwest Region winner of the annual Secretary of Defense, Environmental Security Award in the category of Environmental Cleanup – Installation. NAFEC has completed cleanup and closed 15 of 23 environmental sites in the past 2 years. NAFEC attributes its win mostly to its cooperative management approach and relationship with both the regulators and contractors. NAFEC has created an atmosphere of trust and cooperation with the regulators that has allowed NAFEC to complete some activities years ahead of schedule.

Stewart Bornhoft Appointed EFA West RAC Program Manager

Effective 01 November 1999 **Stewart Bornhoft**, IT/OHM SWDIV RAC Program Manager, was approved by SWDIV to replace Valerie Crooks as The IT Group's EFA West RAC I and RAC II Program Manager. Stew will continue in his current SWDIV RAC I Program Manager role, and support the SWDIV transition efforts by streamlining SWDIV and EFA West RAC processes to achieve Program consistency. Stew intends to be proactive in applying SWDIV RAC lessons learned to help EFA West prepare for accelerating BRAC cleanup efforts in FY01.

Record Of Decision SIGNED

MCAS El Toro, OU-3A Record of Decision authorizing no further action at Site 11(Transformer Storage Area), Orange County, California was signed on September 30, 1999. The No Further Action decision was recommended because concentrations of contaminants in soil are low, and risks to human health are within the range considered allowable by USEPA. Due to the types of chemicals and concentrations present in shallow soil (0 to 10 feet below ground surface), the Marine Corps recommended cleanup at Site 11 (Units 1 and 2). The Marine Corps' preferred remedy for the cleanup at these units involves excavating the contaminated soil and disposing of the excavated soil at an appropriate off-Station facility. Sampling would be conducted to confirm that all the contaminated soil has been removed from the excavated areas. The excavated area would be backfilled to surrounding grade with clean fill material. Excavation at the units would achieve an excess cancer risk of approximately 10⁻⁶ and a noncancer hazard index of approximately 1 for a residential-use scenario. This risk is within the range considered allowable by the USEPA and would allow for unrestricted use of all portions of the site. The benefit of this remedy is that once the site has been remediated, no reuse restrictions or monitoring will be required at any of the units.

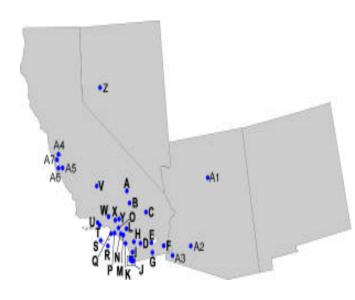
Y2K

In November, a Y2K Assessment of the Environmental Cleanup Program was developed to comply with CNO and NAVFAC Y2K documentation requirements. The Assessment applies to the equipment installed and/or operated by SWDIV contractors in support of the environmental cleanup program. Contingency Plans (CPs) and Continuity of Operation Plans (COOPs) are not required since the environmental cleanup systems installed and operated by SWDIV are considered non-mission essential and the temporary loss of use of these systems will have no impact to mission essential functions. The Environmental Cleanup Program Y2K Assessment serves to avoid any environmental cleanup impacts resulting from Y2K problems. The activities identified as having SWDIV-owned or -operated environmental cleanup equipment located at the installation include:

MCAS Yuma, MCLB Barstow, MCAS El Toro, MCB Camp Pendleton, NAS North Island, NADEP North Island, NAVSTA San Diego, MCAS Miramar, NAWS Seal Beach, Ventura County Naval Complex, Point Loma Naval Complex, NAWS China Lake, NAF El Centro, Long Beach NAVSTA, Long Beach NAVHOSP, Long Beach NSY, Long Beach NS San Pedro, NTC San Diego, MCRD San Diego, Chocolate Mountain AGR, Flagstaff NOS, Sentinel NCCOSC, Bridgeport MCMWTC, Corona NOC NWAD, NAB Coronado, Fallbrook NOC, Imperial Beach OLF, Salton Sea Test Range, San Clemente Island NALF, FASWTC PAC San Diego, FCTC PAC San Diego, FISC San Diego, NAVMEDCTR San Diego, NCCOSC San Diego, NCTS San Diego, NISE WEST San Diego, NSGA Skaggs Island, and MCAGCC Twentynine Palms.

At MCAS Yuma, El Toro, Camp Pendleton, MCAS Miramar, NAWS Seal Beach, Ventura County Naval Complex, Point Loma Naval Complex, NAWS China Lake, NAF El Centro, Long Beach NAVSTA, Long Beach NSY, NTC San Diego, MCRD San Diego there are no anticipated Y2K impacts. MWTC Bridgeport, Barstow, NAS North Island, and NAVSTA San Diego required Y2K upgrades.

Who We Are



SWDIV Regional Bases



On December 13, 1999, technical presentations on *in-situ* remediation of organic solvents and multi-level groundwater monitoring were given by Vironex® Inc:

- In-Situ Remediation of Organic Solvents using Potassium Permanganate and
- Westbay® Multi-Level Groundwater Monitoring systems

For more information on these and future technical presentations, contact Nars Ancog at (619) 532-2540 or ancogna@efdsw.navfac.navy.mil and watch here for future workshops and training.

Submit articles for the April issue to:

Lucreatria Holloway
(619) 532-2289
HollowayLL@efdsw.navfac.navy.mil

Key:

- A China Lake Naval Air Weapons Station
- Barstow Marine Corps Logistics Base
- C Twentynine Palms Marine Corps Air-to-Ground Combat Center
- D Warner Springs Survival, Evasion, Resistance, and Escape Camp
- E Salton Sea Test Base
- F Chocolate Mountain Aerial Gunnery Range
- G El Centro Naval Air Facility
- H Fallbrook Naval Ordnance Center, Pacific Division Detachment
- I Miramar Marine Corps Air Station
- J San Diego Bases
- K Camp Pendleton Marine Corps Base
- L Corona Naval Ordnance Center Naval Warfare Assessment Division
- M El Toro Marine Corps Air Station
- N Tustin Marine Corps Air Facility
- O Pomona Naval Industrial Reserve Ordnance Plant
- P Seal Beach Naval Weapons Station
- Q Long Beach Naval Complex
- R San Clemente Island Naval Auxiliary Landing Field
- S San Nicolas Island Outlying Landing Field
- T Point Mugu Naval Air Weapons Station
- U Port Hueneme Naval Construction Battalion Center
- V Lemoore Naval Air Station
- W Los Angeles Naval and Marine Corps Reserve Center
- X Pico Rivera Marine Corps Reserve Training Center
- Y Azusa Naval Command Control and Ocean Surveillance Center, Morris Dam Facility
- Z Fallon Naval Air Station
- A1 Flagstaff Naval Observatory Station
- A2 Sentinel Naval Command Control and Ocean Surveillance Center
- A3 Yuma Marine Corps Air Station
- A4 Mare Island Naval Shipyard
- A5 Alameda Naval Air Station
- A6 Moffett Field Naval Air StationA7 Treasure Island Naval Station

RITS TECHNOLOGY SEMINAR, FEBRUARY 29, 2000

The Naval Facilities Engineering Command (NAVFAC), the Naval Facilities Engineering Service Center, and Engineering Field have developed Divisions/Activities Remediation Innovative Technology Seminar (RITS) to facilitate transfer of innovative technologies, methodologies, and guidance. The RITS will focus on Optimization of Groundwater Monitoring & Remedial Action Operation (RAO), Enhanced Bioremediation, MTBE, and Fenton's Reagent & Chemical Oxidation. The intended audience is Navy Installation Restoration (IR) and Base Realignment and Closure (BRAC) environmental professionals, Navy remedial action contractors, environmental regulators, and other DOD agency personnel. If you wish to attend please contact Palmer Anderson via e-mail at rits@nfesc.navy.mil or by dialing (805) 982-1498 or DSN: 551-1498.

Action Plans

Since FY99, our business line has been preparing annual action plans. The purpose of the team Action Plan is to set programmatic goals for each team that are in alignment with the Environmental Business Line Annual Plan, Southwest Division Strategic Business Plan and tracked in the Environmental Balanced Scorecard. For FY00 we have refined the Environmental Balanced Scorecard metrics and definitions as follows:

- EXECUTION: OBLIGATIONS IN ACCORDANCE WITH FY00.
- WIP: Actual Cost of Work Performed.
- Backlog: Numerical difference between Execution – WIP.
- Cost Saved/Cost Avoidance:
- 4a. Government Property: The contractor's effectiveness in reutilization of the OPE and residual material from one job to another.
- 4b. Other: Alternative technical approach or solution.
- Health/Safety (OSHA Recordable Injuries): Recordable injuries per 200,000 hours worked in comparison to industry standard.
- DO Physical Closeout Status: Upon receipt of letter from COR Office accepting all deliverables and requesting initiation of physical closeout.
- Small Business Goals: In accordance with contract SB/SBA terms.
- PMO Cost: Percentage of Actual Cost/Workload of Work Performed by Program Management Office.

Typically, PMO duties include:

- Program coordination and oversight
- Project (technical CTOs) resourcing
- Monitoring and controlling projects (technical CTOs) in terms of quality, schedules, costs and consistency
- Financial control and reporting

- Contract controls and subcontracting services
- Document control
- Ensure Small/Small
 Disadvantaged/Women Owned
 Business goals are met
- Support Navy requests (i.e. data calls)
- Participate in CLN/RAC Integration efforts

PMO typically does not include Program Support Functions (PSFs). PSFs include:

- Administrative Support and Database Management Support to Technical CTOs
- QA/QC, Safety and Health, and Technical Management Support to Technical CTOs
- ARARs research/maintenance
- Newsletter publishing
- Website administration
- PAA Cost: Percentage of Actual Cost/Workload of Work Performed by Pre Award Activities.
- Project Cost Performance: Cost Performance Index.
- Project Schedule Performance:
 Schedule Performance Index.

The last five metrics relate directly to team Action Plans.

- Studies Initiated: Upon award of Contract Task Order to initiate study. Types of work to include, but not be limited to, Preliminary Assessment, Remedial Investigation/Feasibility Study, Site Investigation, Extended Site Investigation, Environmental Baseline Survey, and/or Site Specific Environmental Baseline Survey.
- Decision Documents: Upon completion of documents (i.e. deliverables) that recommend action at the site (i.e. additional study, cleanup, or No Further Action)

- Cleanups Initiated: Upon award of Contract Task Order/Delivery Order for types of work to include, but not limited to, Remedial Design, Remedial Action, Engineering Evaluation/Cost Analysis, and/or Long Term Monitoring & Operation.
- Response Complete: Upon submittal of documents to the regulatory community requesting concurrence that the DD triggering the response is complete.
- Sites Closed Out: Upon acceptance by regulatory community that No Further Action is required at the site. NOTE: Written documentation listing Site/Parcel # must be received.

Understanding that these metrics exist and their definitions are extremely important because it gives us one vision to quide program momentum.

At the close of FY99

Studies Initiated = 126% (73/92), Decision Documents = 52% (96/50), Cleanups Initiated = 78% (60/47), Response Complete = 70% (84/59) and Site Closeout = 64% (74/48).

What these data imply is that we did extremely well in executing all the dollars we received. However, there appears to be hesitancy in moving the projects from cleanups to closure. To further validate this information in December of 1999, we performed a management inquiry that requested regulatory and technical issues across the program. The results of that management inquiry validated that building blocks to the regulatory community needed to be established. One of the immediate steps in our plan is to have a partnering session with the regulatory community in the spring of 2000 where we will present our FY00 team Action Plans and resolve program roadblocks. One of the foreseeable resolutions, is a rewriting of the Interagency Partnering Guide that was published in April of 1997.

IT/OHM SWDIV RAC PMO DEVELOPS ELECTRONIC FILE CABINET FOR NOW AND LATER

Need documents right away? Also, need a reliable way of finding them weeks or months later without searching through piles of papers or moving boxes in the hall? IT/OHM is implementing an Electronic Communications Plan that will provide the best of both worlds. It will use email attachments for immediate distribution to the project teams and the IT WEB Site to store documents for later retrieval from the office or project site – anywhere there's access to the internet. The only paper copies will consist of the COTR File, PMO File, and Admin Record Copies. OHM will refine their WEB Site starting in February 2000 by creating a password protected "Electronic File Cabinet" that will allow the Navy and project teams electronic document access to all SWDIV RAC outgoing/incoming documents. The Electronic File Cabinet will be linked to our current Program Management Database allowing the project teams to search and then retrieve documents.

MINORITY SMALL BUSINESS PERSON OF THE YEAR

On October 12, 1999, Richard Amano, President of Laboratory Data Consultants, Inc. (LDCI), a small disadvantaged business under subcontract to Bechtel National, Inc. (BNI), was recognized as Minority Small Business Person of the Year, by the San Diego Minority Supplier Development Council during a luncheon at the Island Palms Hotel & Marina in San Diego. Krish Kapur, Jim Howe, Jon Gilbert and Riki Robidoux from Bechtel; and Richard Selby, the Contracting Officer, were on hand to provide support to and celebrate with Rich Amano. LDCI has been providing data validation services to Bechtel on the Navy CLEAN program for six years.



LCDI has been the data validation subcontractor for the past three years. In that time, they have been given literally hundreds of individual tasks to perform. BNI has never received a late deliverable from LDCI during the entire time that they have been providing independent data validation services. This includes both large and small jobs and many with unexpected requests for accelerated delivery dates. LDCI has been flexible and willing to accommodate any special requests or needs for a given project. Their technical expertise and advice has been invaluable to our ability to produce quality reports. This willingness to go the extra mile has resulted in significant cost savings for the Navy over the past several years. Congratulations on a job well done!



ProjectNet is an interesting new "working tool" type of web site. The heart of **ProjectNet** is a file and document management system that stores copies of any project document that you choose to upload to the system. The file and document management system provides a mechanism for project team members who have access to the system to communicate easily and quickly (acting almost like an instant messenger), exchanging schedules, drawings, photos, specifications, and virtually any document. Anyone given access to **ProjectNet** (and there is a gatekeeper who assigns security levels) has available to them any files and directories to which they have been granted access and can view any of the available files using some of the 200 file formats that ProjectNet has on command.

ProjectNet can:

- help you turn-around critical documents for review by outside parties by minimizing delays caused by sequential in-line reviews and sign-offs, shortening review times,
- ensure control by providing access security down to the document level, providing an audit trail of document access and decision making,
- eliminate geographic barriers to collaboration and cooperation by creating an accessible on-line environment where all team members have the most current information at all times, and
- reduce project costs by cutting down on printing, copying, and delivery costs of documents, manuals, and drawings by facilitating real-time communications, and helping you control travel costs by eliminating unneeded travel for review meetings.

